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333.72 water, Phillips
M26Lw36 County
1960?

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Our Land and Water, Phillips County,
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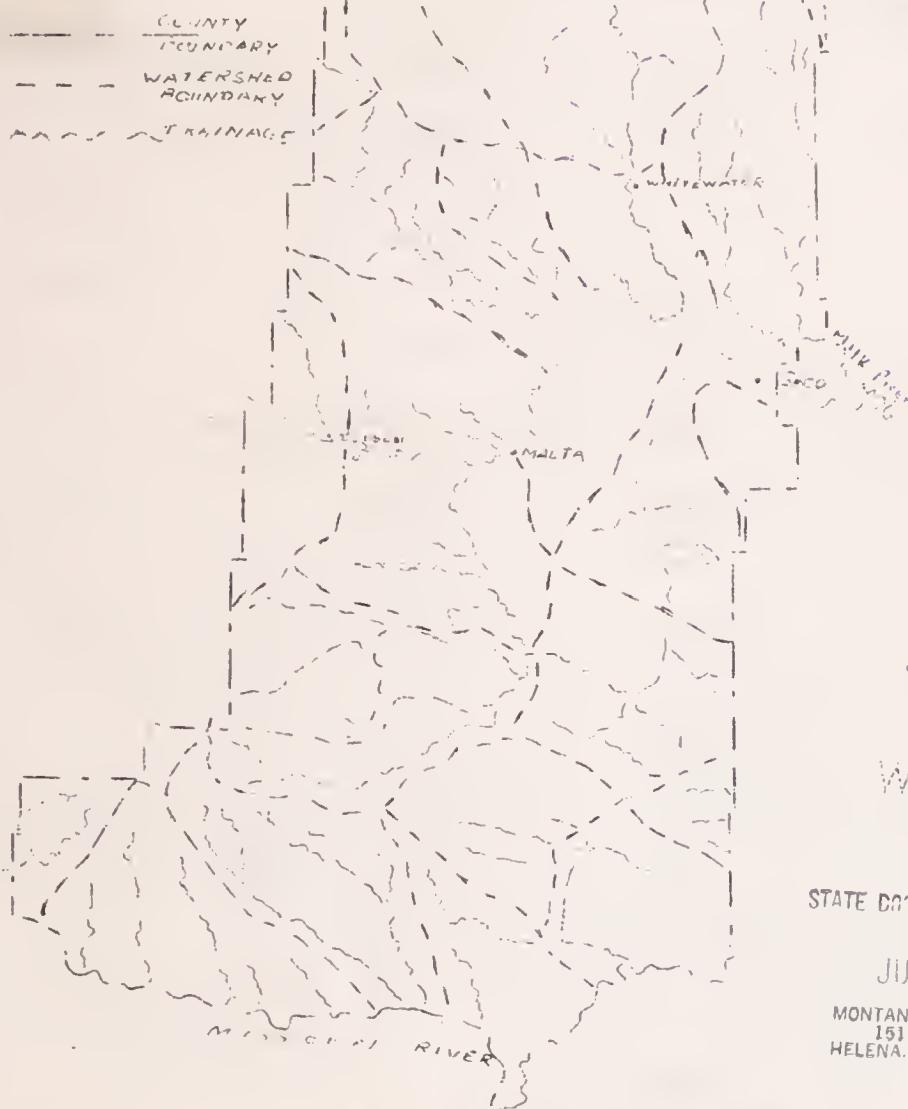
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PHILLIPS COUNTY



OUR
LAND
AND
WATER

STATE DOCUMENTS COLLECTION

JUN 03 1992

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PHILLIPS COUNTY L.S.C.
Malta, Montana

IN PHILLIPS COUNTY THERE ARE 3,345,754 Acres

Phillips Co. - Montana

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF AGRICULTURE

THE AREA OF FEDERAL LAND IS 1,326,694 Acres

TOWNS, ROADS, WATER, AREAS TOTAL 24,245 Acres

THIS LEAVES A CONSERVATION
RESPONSIBILITY ON 1,994,815 Acres

State Office, Soil Conservation Service
Box 855
Bozeman, Montana

LAND USE TODAY AND EXPECTED BY 1975

CROPLAND (Acres)	Dryland	<u>January 1, 1960</u> 256,848	<u>1975</u> 275,617	18,769 acre increase in dry cropland anticipated, primarily from better range lands. Irrigated cropland will increase nearly 50%. New water supplies will be developed; also enlargement of present systems will continue, from woodland or native grasslands primarily.
	Irrigated	<u>45,231</u>	<u>66,964</u>	
	Total	<u>302,079</u>	<u>342,581</u>	
GRASSLAND (Acres)	Rangeland (includes irrigated native)	1,629,766	1,606,941	Native rangeland will decrease about 2% as cropland (both dry and irrigated) increases.
	Tame Pasture	<u>51,124</u>	<u>48,361</u>	Tame pastures will decrease less than 2%. Irrigated pastures will increase but dryland pastures will diminish & go to dry cropland.
	Total	<u>1,680,890</u>	<u>1,650,302</u>	
WOODLAND		6,000	5,624	Woodland will continue to decrease as more acres come under irrigation development.
OTHER				
	Roads, Towns, Water Areas, etc.	5,846	6,323	Urbanization, new & wider roads, etc. will increase 8%. Much of this will come from better land classes.
	TOTAL (excluding Federal lands)	1,994,815	2,004,830	* * 12,000 acres will come from public lands into use and 1985 will go out of agricultural use.

WATERSHED INVENTORYWHAT WAS DONE:

Disregarding county or other political divisions, the natural drainages were divided into units of 250,000 acres or less. See page one (county map) as delineated by dashed lines. Each unit was considered by the committee to determine treatment needs and possible developments which might be met through the small watershed program or by other kinds of local group action.

WHAT IS REVEALED:

Watersheds which drain into the Missouri River are primarily all public grassland except those which originate in the Little Rocky Mountains. Public land is being considered for treatment (by BLM) of natural erosion or erosion being accelerated by inadequate grass cover. Other watersheds empty into the Milk River or Beaver Creek. Some of these, such as Whitewater Creek, arise in Canada and have an erosion potential, primarily to grazing or hayland but are difficult to control. Beaver Creek has a watershed potential for development and has been considered by the Bureau of Reclamation and local people several times. Saco has been protected from Beaver Creek by a levee constructed by Corps of Engineers. The Frenchman Creek Valley has some flood damage potential but unless the numerous structures, such as irrigation dams in Canada, fail it would not be a big threat. Early project action is not likely. Individual or small group action will be slow due to cost, water rights, etc. As town populations and property as well as number of farms likely to be damaged by small watersheds runoffs are low, action will be slow.

WHY CONSERVATION NEEDS INVENTORY WAS MADE

Our land and water resources are not inexhaustible. They must be cared for and used wisely so that their productiveness will continue. To assure their wise use we need basic facts about physical problems of conservation, their magnitude and relative urgency. This inventory contains basic facts and will be modified and kept current with advances in technology and increased knowledge.

HOW IT WAS MADE AND WHO MADE IT

It was authorized by the Secretary of Agriculture as part of a nationwide inventory. It is based upon soil surveys of 160 acre samples selected at random. These samples were expanded to represent the entire (not federal land) in the county. The county committee selected to use the information and enlarge on it was composed of representatives of the U. S. Department of Agriculture (ASC, Extension Service, SCS, FHA) plus all other groups and agencies concerned, such as Phillips Soil and Water Conservation District, BLM, Bureau of Reclamation, Fish and Wildlife Service, Montana Fish and Game who assisted voluntarily. Basic soil survey data was provided by the Soil Conservation Service

LAND CLASSES - WHAT THEY ARE

Suitable Cropland Uses	I.	Very good land. High potential for all uses. No limitations
For	II.	Good land. Minor limitations or hazards under use.
Cropland	III.	Moderately good land with major limitations due to climate, slope, etc.
Uses	IV.	Fairly good land with severe limitations if cultivated continuously.
Suitable Pasture or Woodland	V.	Land impractical to till. Too wet, rocky, etc. Some grazing limitations.
For	VI.	Good grazing or forest land. Limited by slope, depth, rainfall, etc.
Wildlife	VII.	Limited use for grazing, timber, etc. due to hazards, etc.
Or		
Watershed	VIII	Limited specialized uses due to location, hazard, municipal water need, etc.

THE PROBLEMS THAT NEED TREATMENT IN 1975

DRY CROPLAND 275,617 Acres	Adequately treated...120,331 acres	44%
	Needing treatment....155,286 acres	56%
Treatment needed because:		
	a. Erosion is dominant problem-96,657 a.	
	b. Climatic conditions are the dominant problem-83,902 a.	
IRRIGATED CROPLAND 66,964 Acres	Adequately treated...17,328 acres	26%
	Needing treatment....49,306 acres	74%
Treatment needed because:		
	a. Erosion is dominant problem-14,669 acres.	
	b. Excess water is a problem-8,000 acres.	
	c. Unfavorable soil conditions-26,967 acres.	
GRASSLAND (Range, Pasture, and Irrigated Native) 1,650,302 Acres	Adequately treated...71,079 acres	4%
	Needing treatment....1,579,223 acres	96%
Treatment needed for:		
	a. Needs re-seeding-18,264 acres	
	b. Improvement of vegetative cover-856,000 acres	
	c. Excess water problem-30,000 acres	
	d. Needs water conservation-60,267 acres	

(over)

Needs protection from:

- e. Overgrazing (water, less use etc.)-446,000 acres
- f. Enroachment of plants-7,500 acres
- g. Insects and diseases-150,000 acres

WOODLAND

5,62 $\frac{1}{4}$ Acres

Adequately treated...0 Acres

Needs treatment.....562 $\frac{1}{4}$ Acres 100%

Treatment needed for:

- a. Improvement of stand-300 acres.
- b. Fire protection-5,22 $\frac{1}{4}$ acres.
- c. Insects and dis ase-5,62 $\frac{1}{4}$ acres.
- d. Establishing windbreaks and belts-400 acres.
- e. Animals-5,62 $\frac{1}{4}$ acres.

CHANGES IN USE OF CLASSES OF LAND

FROM:

1960

TO:

Changes in land class use by 1975

Land Class	CROPLAND	IRRIGATED CROPLAND	GRASSLAND	WOODLAND	OTHER	OUT OF AGR. USE
	Irrig.	Dryland	Pasture	Rangeland		
I	11,153	11,113	--	--	--	40
II	5,587	5,587	--	--	--	--
III	4,798	4,660	--	--	--	--
IV	5,362	4,912	--	250	--	--
V	101	101	--	--	--	--
VI	17,890	17,677	--	163	--	50
VII	340	340	--	--	--	--
Total	45,231	44,390	--	413	--	388
						40
DRY CROPLAND						
III	143,947	955	139,627	3,115	--	250
IV	36,191	--	34,640	1,551	--	--
VI	75,582	1,000	73,382	1,500	500	--
VII	1,328	--	1,328	--	--	--
Total	256,848	1,955	248,977	6,166	500	--
						250
W/E PASTURE						
VII	13,851	--	1,596	6,890	10,365	--
VI	21,638	--	1,500	20,188	--	--
VII	10,585	--	--	10,585	--	--
Total	51,124	--	3,096	37,663	10,365	--
						--
RANGELAND (Incl. Irrig. Native)					11,000 (Acres into inventory from BLM)	
I	67	--	--	--	67	--
II	1,095	--	700	--	395	--
III	295,954	8,983	19,066	3,519	261,786	--
IV	218,983	6,260	3,278	600	208,766	89
V	11,006	--	--	--	10,006	--
VI	862,814	5,000	500	--	856,779	35
VII	242,847	--	--	--	242,887	60
Total	1,629,766	20,243	23,544	4,119	1,580,070	89
						1,695
WOODLAND (ALL)						
II	162	158	--	--	--	--
IV	418	218	--	--	.200	--
V	5,370	--	--	--	5,370	--
VI	50	--	--	--	50	--
Total	6,000	376	--	--	5,624	--
						--
NON-AG (Roads, Power, Water, etc.)						
II	2,183	--	--	--	--	2,183
IV	3,018	--	--	--	--	3,018
V	520	--	--	--	--	520
VI	125	--	--	--	--	125
Total	5,816	--	--	--	--	5,846
GRAND TOTAL	1,994,815	66,964	275,617	48,361	1,601,941	5,624
						6,323
						1,985



1963 ESTIMATES
SUPPLEMENT TO 1960 CONSERVATION NEEDS
INVENTORY ALL LANDS
PHILLIPS COUNTY

PRACTICE NAME	UNITS	ON THE LAND NOW	TOTAL REMAINING TO BE DONE	TOTAL ALL PRACTICES DONE & NEEDED
Irrig. Canal or Lateral	Ft	1,345,442	105,600	1,451,042
Cons. Cropping Systems (Dryland)	Ac	140,000	115,000	265,000
Diversion Dams	No	202	100	302
Range-Deferred Grazing	Ac	290,881	250,000	540,881
Ditch Bank Seeding	Ft	50,000	422,400	472,400
Diversions	Ft	31,500	132,000	163,500
Farm Ponds	No	2,100	664	2,764
F.S. & Feedlot Windbreaks	Ac	391	400	791
Irrigation Field Ditch	Ft	1,056,000	580,800	1,636,800
Field Windbreaks	Mi	17	40	57
Firebreaks	Fi	1,000,000	1,000,000	2,000,000
Fishpond Stocking	No	27	25	52
Grassed Wtwys. or outlet	Ac	153	450	603
Hayland Planting	Ac	18,430	7,000	25,430
Irrigation Storage Reservoirs	No	54	25	69
Sprinkler Irrig. System	No	6	12	18
Irrig. Systems, surf & sub-surf	No	20	200	220
Land Clearing	Ac	5,000	2,000	7,000
Irrig. Land Leveling	Ac	9,286	20,196	29,482
Drainage Main or Lateral	Ft	426,710	211,200	637,910
Pasture & Hay Renovation	Ac	7,500	25,000	32,500
Pasture Planting	Ac	16,358	5,000	21,358
Pitting (Range)	Ac	1,920	2,000	3,920
Pond Sealing or Lining	No	9	250	259
Pasture Proper Use	Ae	5,561	15,000	20,561
Range Proper Use	Ac	1,800,000	1,140,000	2,940,000
Range Renovation	Ac	1,400	147,000	148,400
Range Seeding on Converted Land	Ac	19,277	7,500	26,777
Range Re-seeding -1	Ae	600	3,000	3,600
Range Rotation - Def Grazing	Ac	146,000	1,500,000	1,646,000
Rotation Grazing	Ac	1,000	2,500	3,500
Spoil Bank Spreading	Ft	1,700,000	500,000	2,200,000
Spring Development	No	130	70	200
Stripcropping Contour	Ac	250	3,500	3,750
Stripcropping Field	Ac	17,993	14,000	31,992
Structures for Water Control	Ac	3,500	3,500	7,000
Stubble Mulching	Ac	80,000	150,000	230,000
Drainage Field Ditch	Ft	779,904	900,000	1,679,904
Stripcropping Wind	Ac	67,803	100,000	167,803
Tree Planting	Ac	1,000	5,000	6,000
Trough or Tank	No	300	350	650
Waterspreading	No	11,414	7,200	18,614
Wells	No	507	230	737



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